Amendments to the Claims

Please cancel Claims 1-55. Please add new Claims 56-82. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1-55.   Canceled.

56.   (New) A method of diagnosing a psychiatric disorder or a comorbid disorder in an individual comprising detecting the orientation of the Inv8p23 genomic region, wherein the orientation of the Inv8p23 genomic region is indicative of a psychiatric disorder.

57.   (New) The method of Claim 56, wherein the psychiatric disorder is an anxiety disorder.

58.   (New) The method of Claim 57, wherein the anxiety disorder is panic disorder or bipolar disorder.

59.   (New) The method of Claim 58, wherein the inverted orientation of the Inv8p23 genomic region is indicative of panic disorder.

60.   (New) The method of Claim 56, wherein the comorbid disorder is selected from the group consisting of: depression, bipolar disorder, obsessive-compulsive disorder, histrionic personality disorder, family denial and dysfunction, hypercholesterolemia and substance abuse.

61.   (New) The method of Claim 60, wherein the comorbid disorder is selected from the group consisting of: depression, bipolar disorder and hypercholesterolemia.

62.   (New) The method of Claim 56, wherein the orientation of Inv8p23 is determined by detecting one or more markers at one or more polymorphic sites, wherein the one or more polymorphic sites are in linkage disequilibrium with Inv8p23, and wherein a particular allele at the one or more polymorphic sites is indicative of a particular orientation of Inv8p23.

63.   (New) The method of Claim 62, wherein the one or more markers are selected from the group consisting of: SG08S5, SG08S95, DG8S269, DG8S163, DG8S197, AF131215-2, DG8S127, SG08S120, DG8S179, SG08S27, DG8S261, SG08S71, SG08S32, SG08S517, SG08S70, SG08S102, SG08S73, SG08S76, SG08S26, DG8S242, SG08S15, DG8S257, SG08S138, DG8S161, SG08S520, DG00AAHBG, SG08S508, DG8S156, D8S1695 and DG8S170.

64.   (New) The method of Claim 63, wherein the one or more markers comprise the A allele for SG08S71 and the G allele for DG00AAHBG.

65.   (New) The method of Claim 62, wherein the inverted allele of Inv8p23 is detected by detecting a haplotype comprising one or more genetic markers.

66.   (New) The method of Claim 65, wherein one or more genetic markers of the haplotype are selected from the group consisting of: SG08S5, SG08S95, DG8S269, DG8S163, DG8S197, AF131215-2, DG8S127, SG08S120, DG8S179, SG08S27, DG8S261, SG08S71, SG08S32, SG08S517, SG08S70, SG08S102, SG08S73, SG08S76, SG08S26, DG8S242, SG08S15, DG8S257, SG08S138, DG8S161, SG08S520, DG00AAHBG, SG08S508, DG8S156, D8S1695 and DG8S170.

67.   (New) The method of Claim 66, wherein the haplotype comprises the A allele for SG08S71 and the G allele for DG00AAHBG.

68.   (New) The method of Claim 62, wherein the one or more surrogate markers comprise a marker in linkage disequilibrium with one or more markers selected from the group consisting of: SG08S5, SG08S95, DG8S269, DG8S163, DG8S197, AF131215-2, DG8S127, SG08S120, DG8S179, SG08S27, DG8S261, SG08S71, SG08S32, SG08S517, SG08S70, SG08S102, SG08S73, SG08S76, SG08S26, DG8S242, SG08S15, DG8S257, SG08S138, DG8S161, SG08S520, DG00AAHBG, SG08S508, DG8S156, D8S1695 and DG8S170.

69.   (New) The method of Claim 68, wherein the one or more surrogate markers comprise DG8S132.

70.   (New) A kit for diagnosing a psychiatric disorder or a comorbid disorder comprising at least one agent useful for detecting the orientation of the Inv8p23 genomic region, wherein the orientation of the Inv8p23 genomic region is indicative of the psychiatric disorder.

71.   (New) The kit of Claim 70, wherein the orientation of Inv8p23 is determined by detecting one or more markers at one or more polymorphic sites, wherein one or more markers is selected from the group consisting of the markers listed in FIGS. 6A-6K.

72.   (New) The kit of Claim 70, wherein bipolar disorder occurs without panic disorder.

73.   (New) The kit of Claim 72, wherein one or more markers are selected from the group consisting of the markers listed in FIGS. 7A-7K.

74.   (New) A method for predicting the efficacy of a drug for treating a psychiatric disorder or a comorbid disorder in a human patient, comprising determining the orientation of the Inv8p23 genomic region, wherein the orientation of the Inv8p23 genomic region is indicative of responsiveness or non-responsiveness to the drug in the human patient.

75.   (New) The method of Claim 74, wherein the drug is selected from the group consisting of: amine reuptake inhibitors, selective serotonin reuptake inhibitors, selective norepinephrine reuptake inhibitors, combined serotonin-norepinephrine reuptake inhibitors, combined dopamine-norepinephrine reuptake inhibitors, monoamine oxidase inhibitors, reversible/selective inhibitors of monoamine oxidase-A; 5-HT 2A receptor antagonists, combined 5-HT 2A antagonists with serotonin reuptake inhibition, tricyclic drugs, and combined 5-HT 2A, 5-HT 2C and alpha-2 antagonism.

76.   (New) The method of Claim 75, wherein the drug is a selective serotonin reuptake inhibitor.

77.   (New) The method of Claim 74, wherein the drug is selected from the group consisting of: venlafaxine, sertraline, paroxat, fluoxetine, escitalopram and citalopram.

78.   (New) The method of Claim 74, wherein the psychiatric disorder is anxiety disorder or depression.

79.   (New) The method of Claim 78, wherein the anxiety disorder is panic disorder or bipolar disorder.

80.   (New) The method of Claim 74, wherein the orientation of Inv8p23 is determined by detecting one or more markers at one or more polymorphic sites wherein the one or more polymorphic sites are in linkage disequilibrium with the Inv8p23 genomic region and wherein the one or more markers are indicative of the orientation of the Inv8p23 genomic region.

81.   (New) The method of Claim 80, wherein the one or more markers are selected from the group consisting of: DG8S269, SG08S95, SG08S5, SG08S71 and SG08S73.

82.   (New) The method of Claim 80, wherein the drug is selected from the group consisting of: venlafaxine, fluoxetine and Citalopram.